

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/581,354  
Source: IFWP  
Date Processed by STIC: 6/19/06

# ***ENTERED***

## CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/581,354

CRF Edit Date: 6/19/06  
Edited by: [Signature]

\_\_\_ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

\_\_\_ Corrected the SEQ ID NO. Sequence numbers edited were:

\_\_\_\_\_

\_\_\_ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

\_\_\_\_\_

\_\_\_ Deleted: \_\_\_ invalid beginning/end-of-file text ; \_\_\_ page numbers

\_\_\_ Inserted mandatory headings/numeric identifiers, specifically:

\_\_\_\_\_

\_\_\_ Moved responses to same line as heading/numeric identifier, specifically:

\_\_\_\_\_

\_\_\_ Other:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



IFWP

## RAW SEQUENCE LISTING

DATE: 06/19/2006

PATENT APPLICATION: US/10/581,354

TIME: 11:38:20

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\06192006\J581354.raw

```

3 <110> APPLICANT: INSTITUT PASTEUR
4     CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE
5     UNIVERSITE PARIS 7
6     VAN DER WERF, Sylvie
7     ESCRIOU, Nicolas
8     CRESCENZO-CHAIGNE, Bernadette
9     MANUGUERRA, Jean-Claude
10    KUNST, Franck
11    CALLENDRET, Benoit
12    BETTON, Jean-Michel
13    LORIN, Valerie
14    GERBAUD, Sylvie
15    BURGUIERE, Ana Maria
16    AZEBI, Saliha
17    CHARNEAU, Pierre
18    TANGY, Frederic
19    COMBREDET, Chantal
20    DELAGNEAU, Jean-Francois
21    MARTIN, Monique
23 <120> TITLE OF INVENTION: USE OF PROTEINS AND PEPTIDES CODED BY THE GENOME OF A NOVEL
STRAIN OF
24    SARS-ASSOCIATED CORONAVIRUS
26 <130> FILE REFERENCE: 226-111ext
C--> 28 <140> CURRENT APPLICATION NUMBER: US/10/581,354
C--> 28 <141> CURRENT FILING DATE: 2006-06-02
28 <150> PRIOR APPLICATION NUMBER: FR 0314152
29 <151> PRIOR FILING DATE: 2003-12-02
31 <150> PRIOR APPLICATION NUMBER: FR 0314151
32 <151> PRIOR FILING DATE: 2003-12-02
34 <160> NUMBER OF SEQ ID NOS: 158
36 <170> SOFTWARE: PatentIn version 3.1
38 <210> SEQ ID NO: 1
39 <211> LENGTH: 29746
40 <212> TYPE: DNA
41 <213> ORGANISM: CORONAVIRUS
43 <400> SEQUENCE: 1
44 atattaggtt tttacctacc caggaaaagc caaccaacct cgatctcttg tagatctgtt      60
45 ctctaaacga actttaaaat ctgtgtagct gtcgctcggc tgcatgccta gtgcacctac      120
46 gcagtataaa caataataaa ttttactgtc gttgacaaga aacgagtaac tcgtccctct      180
47 tctgcagact gcttacggtt tcgtccgtgt tgcagtcgat catcagcata cctaggtttc      240
48 gtccgggtgt gaccgaaagg taagatggag agccttggtc ttggtgtcaa cgagaaaaca      300
49 cacgtccaac tcagtttgcc tgtccttcag gttagagacg tgctagtgcg tggcttcggg      360
50 gactctgtgg aagaggccct atcggaggca cgtgaacacc tcaaaaatgg cacttggtgt      420
51 ctagtagagc tggaaaaagg cgtactgccc cagcttgaac agccctatgt gttcattaaa      480

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/581,354

DATE: 06/19/2006

TIME: 11:38:20

Input Set : A:\PTO.AMC.txt

Output Set : N:\CRF4\06192006\J581354.raw

52	cgttctgatg	ccttaagcac	caatcacggc	cacaaggctg	ttgagctggt	tgcagaaatg	540
53	gacggcattc	agtacggctg	tagcgggtata	acactgggag	tactcgtgcc	acatgtgggc	600
54	gaaaccccaa	ttgcataccg	caatgttctt	cttcgtaaga	acggtaataa	gggagccggt	660
55	ggcatagct	atggcatcga	tctaaagtct	tatgacttag	gtgacgagct	tggcactgat	720
56	cccattgaag	attatgaaca	aaactggaac	actaagcatg	gcagtgggtg	actccgtgaa	780
57	ctcactcgtg	agctcaatgg	aggtgcagtc	actcgcctatg	tcgacaacaa	tttctgtggc	840
58	ccagatgggt	accctcttga	ttgcatcaaa	gattttctcg	cacgcgcggg	caagtcaatg	900
59	tgcactcttt	ccgaacaact	tgattacatc	gagtcgaaga	gaggtgtcta	ctgctgccgt	960
60	gaccatgagc	atgaaattgc	ctggttcact	gagcgcctcg	ataagagcta	cgagcaccag	1020
61	acacccttcg	aaattaagag	tgccaagaaa	tttgacactt	tcaaagggga	atgccccaaag	1080
62	tttgtgtttc	ctcttaactc	aaaagtcaaa	gtcattcaac	cacgtgttga	aaagaaaaag	1140
63	actgagggtt	tcatggggcg	tatacgtctt	gtgtaccctg	ttgcatctcc	acaggagtgt	1200
64	aacaatatgc	acttgtctac	cttgatgaaa	tgtaatcatt	gcgatgaagt	ttcatggcag	1260
65	acgtgcgact	ttctgaaagc	cacttgtgaa	cattgtggca	ctgaaaattt	agttattgaa	1320
66	ggacctacta	catgtgggta	cctacctact	aatgctgtag	tgaaaatgcc	atgtcctgcc	1380
67	tgtcaagacc	cagagattgg	acctgagcat	agtgttgagc	attatcacia	ccactcaaac	1440
68	attgaaactc	gactccgcaa	gggaggtagg	actagatgtt	ttggaggctg	tgtgtttgcc	1500
69	tatgtttggt	gctataataa	gcgtgcctac	tgggttcctc	gtgctagtgc	tgatattggc	1560
70	tcaggccata	ctggcattac	tggtgacaat	gtggagacct	tgaatgagga	tctccttgag	1620
71	atactgagtc	gtgaacgtgt	taacattaac	attgttggcg	attttcattt	gaatgaagag	1680
72	gttgccatca	ttttggcatc	tttctctgct	tctacaagtg	cctttattga	cactataaag	1740
73	agtcttgatt	acaagtcttt	caaaaccatt	gttgagtctt	gcggttaacta	taaagttacc	1800
74	aagggaaagc	ccgtaaaagg	tgcttggaac	attggacaac	agagatcagt	tttaacacca	1860
75	ctgtgtggtt	ttccctcaca	ggctgtgggt	gttatcagat	caatttttgc	gcgcacactt	1920
76	gatgcagcaa	accactcaat	tcttgatttg	caaagagcag	ctgtcaccat	acttgatggt	1980
77	atttctgaac	agtcattacg	tcttgtcgac	gccatggttt	atacttcaga	cctgctcacc	2040
78	aacagtgtca	ttattatggc	atatgtaact	gggtggtctt	tacaacagac	ttctcagtgg	2100
79	ttgtctaate	ttttgggcac	tactgttgaa	aaactcaggc	ctatctttga	atggattgag	2160
80	gcgaaactta	gtgcaggagt	tgaatttctc	aaggatgctt	gggagattct	caaatttctc	2220
81	attacagggt	tttttgacat	cgtcaagggt	caaatacagg	ttgcttcaga	taacatcaag	2280
82	gatttgttaa	aatgcttcat	tgatgttggt	aacaaggcac	tcgaaatgtg	cattgatcaa	2340
83	gtcactatcg	ctggcgcaaa	gttgcgatca	ctcaacttag	gtgaagtctt	catcgctcaa	2400
84	agcaagggac	tttaccgtca	gtgtatacgt	ggcaaggagc	agctgcaact	actcatgcct	2460
85	cttaaggcac	caaaagaagt	aacctttctt	gaagggtgatt	cacatgacac	agtacttacc	2520
86	tctgaggagg	ttgttctcaa	gaacgggtgaa	ctcgaagcac	tcgagacgcc	cgttgatagc	2580
87	ttcacaaatg	gagctatcgt	tggcacacca	gtctgtgtaa	atggcctcat	gctcttagag	2640
88	attaaggaca	aagaacaata	ctgcgcattg	tctcctgggt	tactggctac	aaacaatgtc	2700
89	tttcgcttaa	aaggggggtg	accaattaaa	gggtgaacct	ttggagaaga	tactgtttgg	2760
90	gaagttcaag	gttacaagaa	tgtgagaatc	acatttgagc	ttgatgaacg	tgttgacaaa	2820
91	gtgcttaatg	aaaagtgcct	tgtctacact	gttgaatccg	gtaccgaagt	tactgagttt	2880
92	gcatgtgttg	tagcagaggc	tgttgtgaag	actttacaac	cagtttctga	tctccttacc	2940
93	aacatgggta	ttgatcttga	tgagtggagt	gtagctacat	tctacttatt	tgatgatgct	3000
94	ggtgaagaaa	acttttctac	acgtatgtat	tgttcctttt	accctccaga	tgagggaagaa	3060
95	gaggacgatg	cagagtgtga	ggaagaagaa	attgatgaaa	cctgtgaaca	tgagtacggg	3120
96	acagaggatg	attatcaagg	tctccctctg	gaatttgggt	cctcagctga	aacagttcga	3180
97	gttgaggaag	aagaagagga	agactggctg	gatgatacta	ctgagcaatc	agagattgag	3240
98	ccagaaccag	aacctacacc	tgaagaacca	gttaatcagt	ttactgggta	tttaaaactt	3300
99	actgacaatg	ttgccattaa	atgtgttgac	atcgtaaagg	aggcaciaaag	tgctaatacct	3360
100	atgggtgattg	taaatgctgc	taacatacac	ctgaacatg	gtgggtgggt	agcaggtgca	3420

## RAW SEQUENCE LISTING

DATE: 06/19/2006

PATENT APPLICATION: US/10/581,354

TIME: 11:38:20

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\06192006\J581354.raw

101	ctcaacaagg	caaccaatgg	tgccatgcaa	aaggagagtg	atgattacat	taagctaaat	3480
102	ggccctctta	cagtaggagg	gtcttgtttg	ctttctggac	ataatcttgc	taagaagtgt	3540
103	ctgcatgttg	ttggacctaa	cctaaatgca	ggtgaggaca	tccagcttct	taaggcagca	3600
104	tatgaaaatt	tcaattcaca	ggacattctta	cttgcaccat	tgttgtcagc	aggcatattt	3660
105	ggtgctaaac	cacttcagtc	tttacaagtg	tgcggtgcaga	cggttcgtac	acaggttttt	3720
106	attgcagtca	atgacaaagc	tctttatgag	caggttggtca	tggattatct	tgataacctg	3780
107	aagcctagag	tggaagcacc	taaacaagag	gagccacca	acacagaaga	ttccaaaact	3840
108	gaggagaaat	ctgtcgtaca	gaagcctgtc	gatgtgaagc	caaaaattaa	ggcctgcatt	3900
109	gatgaggtta	ccacaacact	ggaagaaact	aagtttctta	ccaataagtt	actcttgttt	3960
110	gctgatataca	atggtaagct	ttaccatgat	tctcagaaca	tgcttagagg	tgaagatatg	4020
111	tctttccttg	agaaggatgc	accttacatg	gtaggtgatg	ttatcactag	tggtgatatc	4080
112	acttggtgtg	taataccctc	caaaaaggct	ggtggcacta	ctgagatgct	ctcaagagct	4140
113	ttgaagaaag	tgccagttga	tgagtatata	accacgtacc	ctggacaagg	atgtgctggt	4200
114	tatacacttg	aggaagctaa	gactgctctt	aagaaatgca	aatctgcatt	ttatgtacta	4260
115	ccttcagaag	cacctaatgc	taaggaagag	attctaggaa	ctgtatcctg	gaatttgaga	4320
116	gaaatgcttg	ctcatgctga	agagacaaga	aaattaatgc	ctatatgcat	ggatgttaga	4380
117	gccataatgg	caaccatcca	acgtaagtat	aaaggaatta	aaattcaaga	gggcatcggt	4440
118	gactatgggtg	tccgattctt	cttttatact	agtaaagagc	ctgtagcttc	tattattacg	4500
119	aagctgaact	ctctaaatga	gccgcttgtc	acaatgccaa	ttggttatgt	gacacatggt	4560
120	tttaatcttg	aagaggctgc	gcgctgtatg	cgttctctta	aagctcctgc	cgtagtgtca	4620
121	gtatcatcac	cagatgctgt	tactacatat	aatggatacc	tcacttcgtc	atcaaagaca	4680
122	tctgaggagc	actttgtaga	aacagtttct	ttggctggct	cttacagaga	ttggtcctat	4740
123	tcaggacagc	gtacagagtt	aggtgttgaa	tttcttaagc	gtggtgacaa	aattgtgtac	4800
124	cacactctgg	agagccccgt	cgagtttcat	cttgacgggtg	aggttctttc	acttgacaaa	4860
125	ctaaagagtc	tcttatccct	gcgggagggt	aagactataa	aagtgttcac	aactgtggac	4920
126	aacactaatc	tccacacaca	gcttggtgat	atgtctatga	catatggaca	gcagtttggt	4980
127	ccaacatact	tggtatggtg	tgatgttaca	aaaattaaac	ctcatgtaaa	tcatgagggt	5040
128	aagactttct	ttgtactacc	tagtgatgac	acactacgta	gtgaagcttt	cgagtactac	5100
129	catactcttg	atgagagttt	tcttggtagg	tacatgtctg	ctttaaacca	cacaaagaaa	5160
130	tggaaatttc	ctcaagttgg	tggtttaact	tcaattaaat	gggctgataa	caattgttat	5220
131	ttgtctagtg	ttttattagc	acttcaacag	cttgaagtca	aattcaatgc	accagcactt	5280
132	caagaggctt	attatagagc	ccgtgctggg	gatgctgcta	acttttgtgc	actcatactc	5340
133	gcttacagta	ataaaaactgt	tggcgagctt	ggtgatgtca	gagaaactat	gacctatctt	5400
134	ctacagcatg	ctaatttgga	atctgcaaa	cgagttctta	atgtggtgtg	taaacattgt	5460
135	ggtcagaaaa	ctactacctt	aacgggtgta	gaagctgtga	tgtatatggg	tactctatct	5520
136	tatgataatc	ttaagacagg	tgtttccatt	ccatgtgtgt	gtggtcgtga	tgctacacaa	5580
137	tatctagtac	aacaagagtc	ttcttttgtt	atgatgtctg	caccacctgc	tgagtataaa	5640
138	ttacagcaag	gtacattctt	atgtgcgaat	gagtacactg	gtaactatca	gtgtggtcat	5700
139	tacactcata	taactgctaa	ggagaccttc	tatcgatttg	acggagctca	ccttacaag	5760
140	atgtcagagt	acaaaggacc	agtgaactgat	gttttctaca	aggaaacatc	ttacactaca	5820
141	accatcaagc	ctgtgtcgta	taaactcgat	ggagttactt	acacagagat	tgaacaaaaa	5880
142	ttggatgggt	attataaaaa	ggataatgct	tactatacag	agcagcctat	agaccttgta	5940
143	ccaactcaac	cattacaaaa	tgcgagtttt	gataatttca	aactcacatg	ttctaacaca	6000
144	aaatttgctg	atgatttaaa	tcaaatagaca	ggcttcacaa	agccagcttc	acgagagcta	6060
145	tctgtcacat	tcttcccaga	cttgaatggc	gatgtagtgg	ctattgacta	tagacactat	6120
146	tcagcgagtt	tcaagaaagg	tgctaaatta	ctgcataagc	caattgtttg	gcacattaac	6180
147	caggctacaa	ccaagacaac	gttcaaacca	aacacttggt	gtttacgttg	tctttggagt	6240
148	acaaagccag	tagatacttc	aaattcattt	gaagttctgg	cagtagaaga	cacacaagga	6300
149	atggacaatc	ttgcttggtga	aagtcaacaa	cccacctctg	aagaagtagt	ggaaaatcct	6360

## RAW SEQUENCE LISTING

DATE: 06/19/2006

PATENT APPLICATION: US/10/581,354

TIME: 11:38:20

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\06192006\J581354.raw

```

150 accatacaga aggaagtcac agagtgtgac gtgaaaacta ccgaagttgt aggcaatgtc 6420
151 atacttaaac catcagatga aggtgttaaa gtaacacaag agttagggtca tgaggatcct 6480
152 atggctgctt atgtggaaaa cacaagcatt accattaaga aacctaataga gctttcacta 6540
153 gccttagggt taaaaacaat tgccactcat ggtattgctg caattaatag tgttccttgg 6600
154 agtaaaatct tggttatgtt caaacatttc ttaggacaag cagcaattac aacatcaaat 6660
155 tgcgctaaga gattagcaca acgtgtgttt aacaattata tgccttatgt gtttacatta 6720
156 ttgttccaat tgtgtacttt tactaaaagt accaattcta gaattagagc ttcactacct 6780
157 acaactattg ctaaaaatag tggttaagagt gttgtctaat tatgtttgga tgccggcatt 6840
158 aattatgtga agtcacccaa atttttctaaa ttgttcacaa tcgctatgtg gctattgttg 6900
159 ttaagtattt gcttaggttc tctaattctgt gtaactgctg cttttgggtg actcttatct 6960
160 aattttgggt ctccttctta ttgtaatggc gttagagaat tgtatcttaa ttcgtctaac 7020
161 gttactacta tggatttctg tgaagggtct tttccttgca gcatttggtt aagtggatta 7080
162 gactcccttg attcttatcc agctcttgaa accattcagg tgacgatttc atcgtacaag 7140
163 ctgacttga caattttagg tctggccgct gagtgggttt tggcatatat gttgttcaca 7200
164 aaattctttt atttattagg tctttcagct ataatgcagg tgttctttgg ctattttgct 7260
165 agtcatttca tcagcaattc ttggctcatg tggtttatca ttagtattgt acaaattggc 7320
166 cccgtttctg caatggttag gatgtacatc ttctttgctt ctttctacta catatggaag 7380
167 agctatgttc atatcatgga tggttgcacc tcttcgactt gcatgatgtg ctataagcgc 7440
168 aatcgtgcca cagcggttga gtgtacaact attgttaatg gcatgaagag atctttctat 7500
169 gtctatgcaa atggaggccg tggcttctgc aagactcaca attggaattg tctcaattgt 7560
170 gacacatttt gcactggtag tacattcatt agtcatgaag ttgctcgtga tttgtcactc 7620
171 cagtttaaaa gaccaatcaa cctactgac cagtcactgt atattgttga tagtgttgct 7680
172 gtgaaaaatg gcgcgcttca cctctacttt gacaaggctg gtcaaaagac ctatgagaga 7740
173 catccgctct cccattttgt caatttagac aatttgagag ctaacaacac taaaggttca 7800
174 ctgcctatta atgtcatagt ttttgatggc aagtccaaat gcgacgagtc tgcttctaag 7860
175 tctgcttctg tgtactacag tcagctgatg tgccaacctt ttctgttgct tgaccaagct 7920
176 cttgtatcag acgttggaga tagtactgaa gtttcggtta agatgtttga tgcttatgtc 7980
177 gacacctttt cagcaacttt tagtgttcct atggaaaaac ttaaggcact tgttgctaca 8040
178 gctcacagcg agttagcaaa ggggtgtagc ttagatgggt tcctttctac attcgtgtca 8100
179 gctgcccagc aagggtgttg tgataccgat gttgacacaa aggatgttat tgaatgtctc 8160
180 aaactttcac atcactctga cttagaagtg acagggtgaca gttgtaacaa tttcatgtct 8220
181 acctataata aggttgaaaa catgacgccc agagatcttg gcgcatgtat tgactgtaat 8280
182 gcaaggcata tcaatgccc ahtagcaaaa agtcacaatg tttcactcat ctggaatgta 8340
183 aaagactaca tgtctttatc tgaacagctg cgtaaacaaa ttcgtagtgc tgccaagaag 8400
184 aacaacatac ctttttagact aacttgtgct acaactagac aggttgtcaa tgcataact 8460
185 actaaaatct cactcaaggg tggttaagatt gttagtactt gttttaaact tatgcttaag 8520
186 gccacattat tgtgcgttct tgctgcattg gtttggtata tcgttatgcc agtacatata 8580
187 ttgtcaatcc atgatggtta cacaatgaa atcattgggt acaaagccat tcaggatggg 8640
188 gtcactcgtg acatcatttc tactgatgat tgttttgcaa ataaacatgc tggttttgac 8700
189 gcatggttta gccagcgtgg tggttcatat aaaaatgaca aaagctgccc tgtagtagct 8760
190 gctatcatta caagagagat tggtttcata gtgcctggct taccgggtac tgtgctgaga 8820
191 gcaatcaatg gtgacttctt gcattttcta cctcgtgttt ttagtgctgt tggcaacatt 8880
192 tgcacacac cttccaaact cattgagtat agtgattttg ctacctctgc ttgcgttctt 8940
193 gctgctgagt gtacaatttt taaggatgct atgggcaaac ctgtgccata ttgttatgac 9000
194 actaatttgc tagagggttc tatttcttat agtgagcttc gtccagacac tcgttatgtg 9060
195 cttatggatg gttccatcat acagtttctt aacacttacc tggagggttc tgttagagta 9120
196 gtaacaactt ttgatgctga gtactgtaga catggtacat gcgaaaggct agaagtaggt 9180
197 atttgcctat ctaccagtgg tagatgggtt cttataatag agcattacag agctctatca 9240
198 ggagttttct gtgggtgttg tgcgatgaat ctcatagcta acatctttac tcctcttgtg 9300

```

## RAW SEQUENCE LISTING

DATE: 06/19/2006

PATENT APPLICATION: US/10/581,354

TIME: 11:38:20

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\06192006\J581354.raw

199	caacctgtgg	gtgctttaga	tgtgtctgct	tcagtagtgg	ctggtggtat	tattgccata	9360
200	ttggtgactt	gtgctgccta	ctactttatg	aaattcagac	gtgtttttgg	tgagtacaac	9420
201	catgttggtg	ctgctaatac	acttttgttt	ttgatgtctt	tcactatact	ctgtctggta	9480
202	ccagcttaca	gctttctgcc	gggagctctac	tcagtccttt	acttgtaact	gacattctat	9540
203	ttcaccaatg	atgttttcatt	cttggctcac	cttcaatggt	ttgccatggt	ttctcctatt	9600
204	gtgccttttt	ggataacagc	aatctatgta	ttctgtattt	ctctgaagca	ctgccattgg	9660
205	ttctttaaca	actatcttag	gaaaagagtc	atgtttaatg	gagttacatt	tagtaccttc	9720
206	gaggaggctg	ctttgtgtac	ctttttgtct	aacaaggaaa	tgtacctaaa	attgcgtagc	9780
207	gagacactgt	tgccacttac	acagtataac	aggtatcttg	ctctatataa	caagtacaag	9840
208	tatttcagtg	gagccttaga	tactaccagc	tatcgtgaag	cagcttgctg	ccacttagca	9900
209	aaggctctaa	atgacttttag	caactcaggt	gctgatgttc	tctaccaacc	accacagaca	9960
210	tcaatcactt	ctgctgttct	gcagagtggg	tttaggaaaa	tggcattccc	gtcaggcaaa	10020
211	gttgaagggt	gcatggtaca	agtaacctgt	ggaactacaa	ctcttaatgg	attgtgggtg	10080
212	gatgacacag	tatactgtcc	aagacatgtc	atttgcacag	cagaagacat	gcttaatcct	10140
213	aactatgaag	atctgctcat	tcgcaaattc	aaccatagct	ttcttggtca	ggctggcaat	10200
214	gttcaacttc	gtgttattgg	ccattctatg	caaaattgtc	tgcttaggct	taaagttgat	10260
215	acttctaacc	ctaagacacc	caagtataaa	tttgtccgta	tccaacctgg	tcaaacattt	10320
216	tcagttctag	catgctacaa	tggttcacca	tctgggtgtt	atcagtgctg	catgagacct	10380
217	aatcatacca	ttaaagggtc	tttctttaat	ggatcatgtg	gtagtgttgg	ttttaacatt	10440
218	gattatgatt	gcgtgtcttt	ctgctatatg	catcatatgg	agcttccaac	aggagtacac	10500
219	gctggtagtg	acttagaagg	taaattctat	ggtccatttg	ttgacagaca	aactgcacag	10560
220	gctgcaggta	cagacacaac	cataacatta	aatgttttgg	catggctgta	tgctgctggt	10620
221	atcaatgggt	ataggtgggt	tcttaataga	ttcaccacta	ctttgaatga	ctttaacctt	10680
222	gtggcaatga	agtacaacta	tgaacctttg	acacaagatc	atgttgacat	attgggacct	10740
223	ctttctgtct	aaacaggaat	tgcctgtctt	gatatgtgtg	ctgctttgaa	agagctgctg	10800
224	cagaatggta	tgaatgggtc	tactatcctt	ggtagcacta	ttttagaaga	tgagtttaca	10860
225	ccatttgatg	ttgttagaca	atgctctggg	gttaccttcc	aaggtaagtt	caagaaaatt	10920
226	gttaagggca	ctcatcattg	gatgctttta	actttcttga	catcactatt	gattcttggt	10980
227	caaagtacac	agtgggtcact	gtttttcttt	gtttacgaga	atgctttctt	gccatttact	11040
228	cttggtatta	tggcaattgc	tgcagtgtgt	atgctgcttg	ttaagcataa	gcacgcattc	11100
229	ttgtgcttgt	ttctgttacc	ttctcttgca	acagttgctt	actttaatat	ggtctacatg	11160
230	cctgctagct	gggtgatgct	tatcatgaca	tggcttgaat	tggctgacac	tagcttgtct	11220
231	ggttataggt	ttaaaggattg	tgttatgtat	gcttcagctt	tagttttgct	tattctcatg	11280
232	acagctcgca	ctgtttatga	tgatgctgct	agacgtgttt	ggacactgat	gaatgtcatt	11340
233	acacttgttt	acaaagtcta	ctatggtaat	gcttttagatc	aagctatttc	catgtgggcc	11400
234	ttagttattt	ctgtaacctc	taactattct	gggtgcgtta	cgactatcat	gttttttagct	11460
235	agagctatag	tgtttggtgtg	tgttgagtat	tacctattgt	tatttattac	tggcaacacc	11520
236	ttacagtgtg	tcatgcttgt	ttattgtttc	ttaggctatt	gttgctgctg	ctactttggc	11580
237	cttttctggt	tactcaaccg	ttacttcagg	cttactcttg	gtgtttatga	ctacttggtc	11640
238	tctacacaag	aatttaggta	tatgaactcc	caggggcttt	tgcctcctaa	gagtagtatt	11700
239	gatgctttca	agcttaacat	taagttgttg	ggatttggag	gtaaaccatg	tatcaagggt	11760
240	gctactgtac	agtctaaaaa	gtctgacgta	aagtgcacat	ctgtgggtact	gctctcggtt	11820
241	cttcaacaac	ttagagtaga	gtcatcttct	aaattgtggg	cacaatgtgt	acaactccac	11880
242	aatgatattc	ttcttgcaaa	agacacaact	gaagctttcg	agaagatggg	ttctcttttg	11940
243	tctgttttgc	tatccatgca	gggtgctgta	gacattaata	ggttgtgctg	ggaaatgctc	12000
244	gataaccgtg	ctactcttca	ggctattgct	tcagaattta	gttctttacc	atcatatgcc	12060
245	gcttatgcca	ctgcccagga	ggcctatgag	caggctgtag	ctaaggtgta	ttctgaagtc	12120
246	gttctcaaaa	agttaaagaa	atctttgaat	gtggctaaat	ctgagtttga	ccgtgatgct	12180
247	gccatgcaac	gcaagttgga	aaagatggca	gatcaggcta	tgacccaaat	gtacaaacag	12240

## VERIFICATION SUMMARY

DATE: 06/19/2006

PATENT APPLICATION: US/10/581,354

TIME: 11:38:21

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\06192006\J581354.raw

L:28 M:270 C: Current Application Number differs, Replaced Current Application No  
L:28 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:551 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:2,Line#:549  
L:1189 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:9,Line#:1187  
L:1302 M:283 W: Missing Blank Line separator, <400> field identifier  
L:1302 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:11,Line#:1301  
L:1382 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:13,Line#:1380  
L:1443 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:16,Line#:1441  
L:1609 M:283 W: Missing Blank Line separator, <400> field identifier  
L:1609 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:21,Line#:1608  
L:1670 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:23,Line#:1668  
L:1746 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:25,Line#:1744  
L:1801 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:27,Line#:1799  
L:1854 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:29,Line#:1852  
L:2341 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:36,Line#:2339  
L:4213 M:283 W: Missing Blank Line separator, <400> field identifier  
L:4337 M:283 W: Missing Blank Line separator, <400> field identifier  
L:4391 M:283 W: Missing Blank Line separator, <400> field identifier  
L:4522 M:283 W: Missing Blank Line separator, <400> field identifier  
L:4883 M:283 W: Missing Blank Line separator, <400> field identifier  
L:5077 M:283 W: Missing Blank Line separator, <400> field identifier



**Raw Sequence Listing before editing  
(for reference only)**



IFWP

## RAW SEQUENCE LISTING

DATE: 06/14/2006

PATENT APPLICATION: US/10/581,354

TIME: 10:08:35

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\06142006\J581354.raw

3 <110> APPLICANT: INSTITUT PASTEUR  
 4 CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE  
 5 UNIVERSITE PARIS 7  
 6 VAN DER WERF, Sylvie  
 7 ESCRIOU, Nicolas  
 8 CRESCENZO-CHAIGNE, Bernadette  
 9 MANUGUERRA, Jean-Claude  
 10 KUNST, Franck  
 11 CALLENDRET, Benoit  
 12 BETTON, Jean-Michel  
 13 LORIN, Valerie  
 14 GERBAUD, Sylvie  
 15 BURGUIERE, Ana Maria  
 16 AZEBI, Saliha  
 17 CHARNEAU, Pierre  
 18 TANGY, Frederic  
 19 COMBREDET, Chantal  
 20 DELAGNEAU, Jean-Francois  
 21 MARTIN, Monique  
 23 <120> TITLE OF INVENTION: USE OF PROTEINS AND PEPTIDES CODED BY THE GENOME OF A NOVEL  
 STRAIN OF  
 24 SARS-ASSOCIATED CORONAVIRUS  
 26 <130> FILE REFERENCE: 226-111ext  
 C--> 28 <140> CURRENT APPLICATION NUMBER: US/10/581,354  
 C--> 28 <141> CURRENT FILING DATE: 2006-06-02  
 28 <150> PRIOR APPLICATION NUMBER: FR 0314152  
 29 <151> PRIOR FILING DATE: 2003-12-02  
 31 <150> PRIOR APPLICATION NUMBER: FR 0314151  
 32 <151> PRIOR FILING DATE: 2003-12-02  
 34 <160> NUMBER OF SEQ ID NOS: 158  
 36 <170> SOFTWARE: PatentIn version 3.1

**Does Not Comply  
 Corrected Diskette Needed**

## ERRORED SEQUENCES

5241 <210> SEQ ID NO: 158  
 5242 <211> LENGTH: 45  
 5243 <212> TYPE: DNA  
 5244 <213> ORGANISM: Artificial sequence  
 5246 <220> FEATURE:  
 5247 <223> OTHER INFORMATION: PCR primer  
 5249 <400> SEQUENCE: 158  
 5250 ataggatccg cgcgcctcatt atttatcgtc gtcaccttta taatc  
 E--> 5257 1

45

## VERIFICATION SUMMARY

DATE: 06/14/2006

PATENT APPLICATION: US/10/581,354

TIME: 10:08:36

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\06142006\J581354.raw

L:28 M:270 C: Current Application Number differs, Replaced Current Application No  
L:28 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:551 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:2,Line#:549  
L:1189 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:9,Line#:1187  
L:1302 M:283 W: Missing Blank Line separator, <400> field identifier  
L:1302 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:11,Line#:1301  
L:1382 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:13,Line#:1380  
L:1443 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:16,Line#:1441  
L:1609 M:283 W: Missing Blank Line separator, <400> field identifier  
L:1609 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:21,Line#:1608  
L:1670 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:23,Line#:1668  
L:1746 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:25,Line#:1744  
L:1801 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:27,Line#:1799  
L:1854 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:29,Line#:1852  
L:2341 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:36,Line#:2339  
L:4213 M:283 W: Missing Blank Line separator, <400> field identifier  
L:4337 M:283 W: Missing Blank Line separator, <400> field identifier  
L:4391 M:283 W: Missing Blank Line separator, <400> field identifier  
L:4522 M:283 W: Missing Blank Line separator, <400> field identifier  
L:4683 M:283 W: Missing Blank Line separator, <400> field identifier  
L:5077 M:283 W: Missing Blank Line separator, <400> field identifier  
L:5257 M:254 E: No. of Bases conflict, this line has no nucleotides.